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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,651	06/26/2001	Hans-Heinrich Muller	31512-172587	9122
26694	7590	01/12/2004	EXAMINER	
VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			WALLS, DIONNE A	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,651

Applicant(s)

MULLER ET AL.

Examiner

Dionne A. Walls

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 6-11, 13, 14, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6, 9-10, and 17-18 are rejected under 35 U.S.C. 103 as being unpatentable over Applicant's Admitted Prior Art in view of Richerson ("Modern Ceramic Engineering").

Applicant has admitted that known, modern cigarette-making machines comprise a conveyor which includes a duct defining an elongated path arranged to receive a continuous shower of tobacco particles (corresponding to the claimed "flowable particulate material"), said particles being converted into an elongated stream by a stretch of an endless foraminous belt to which the particles are attracted to the underside. The underside of said belt constitutes one wall of the duct, and the duct includes stationary additional walls (corresponding to the claimed "back support") serving to flank the sides of the path beneath the lower reach of the belt and being in continuous contact (corresponding to the claimed "direct contact") with the moving tobacco particles. Applicant then states that attempts to ensure that the stationary walls of the duct will offer low resistance to sliding movement have included adding a coating of such walls with a steel paneling (corresponding to the claimed "lining") which is

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coated with tungsten carbide/cobalt, which also provides adequate resistance to wear. While Applicant's Admitted art may not state that the walls are coated with a ceramic material, Richerson states that the market for wear resistance is dominated by cermets, such as cobalt-bonded tungsten carbide. However, ceramics have been targeted as a means of reducing wear and friction and avoiding the chemical and galvanic attack to which bonded tungsten carbide is vulnerable (page 359). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to substitute the tungsten carbide cobalt with a ceramic, to achieve all of the benefits disclosed in Richerson, and since they are known for their use as liners.

Regarding claim 6, Applicant's Admitted Art modified by Richerson may not specifically articulate that the lining has a thickness in the range of between .05-.5 mm; however, it would have been obvious to one having ordinary skill in the art at the time of the invention to arrive at the claimed thickness ranges for the ceramic lining of the side-guides in an effort to optimize the efficiency of wear-resistance while minimizing material costs.

Regarding claim 18, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize an adhesive of some sort to secure the lining to the back support, since glue/paste is a well-known means by which to adhere items together.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Richerson ("Modern Ceramic Engineering"), and further in view of GB 885,485.

While Applicant's Admitted Prior Art modified by Richerson may not state that the surface adjacent the path has a consistency resembling that of the surface of an orange peel, GB 885,485 states that machine parts, made of metal, are often *sprayed* with ceramic material, in order to impart hardness and wear resistance, resulting in an abrasive surface (see page 1). This would suggest to one having ordinary skill in the art that the surface of the ceramic material would not be smooth and may have some irregularities/roughness (corresponding to the claimed "orange peel surface") that, based on the parameters of the operating system, could be adjusted or finished to ensure efficient wear resistance.

4. Claims 7, 9-11, 13-14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 197 33 443 in view of Applicant's Admitted Prior Art and Richerson ("Modern Ceramic Engineering").

DE 197 33 443 discloses a guide 1 (corresponding to the claimed "conveyor") for advancing a stream of tobacco particles (corresponding to the claimed "flowable particulate material"), comprising channel 7 (corresponding to the claimed "duct") defining a path for the tobacco particles and having sidewalls 14,16 (corresponding to the claimed "back support") flanking the channel, along with the lower stretch of foraminous belt 6 and inserts 4 which have marginal portions (corresponding to the claimed "two additional walls") (see figs; Note: U.S. equivalent 6,186,315). While DE 197 33 443 may not articulate that at least one of said walls consists at least in part of a ceramic material, Applicant has admitted that it is known to coat these walls with a steel paneling which is coated with tungsten carbide/cobalt – which provides adequate

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resistance to wear. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to do so for this purpose. Further, while DE 197 33 443 modified by Applicant's Admitted Art may not state that the walls are coated with a ceramic material, Richerson states that the market for wear resistance is dominated by cermets, such as cobalt-bonded tungsten carbide. However, ceramics have been targeted as a means of reducing wear and friction and avoiding the chemical and galvanic attack to which bonded tungsten carbide is vulnerable (page 359). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of DE 197 33 443 modified by Applicant's Admitted Art to include a ceramic coating on the walls in order to offer low resistance to the sliding movement of the tobacco particles that flow by said walls.

Regarding claim 7, while there may be no clear articulation as to whether the ceramic lining of DE 197 33 443 modified by Applicant's Admitted Prior Art is applied during its molten state or by spraying, this limitation is not deemed to impart any patentable weight to the claims since it articulates a *method* limitation (i.e. the manner in which ceramic is applied), not a *structural* limitation, when the claims are drawn to an apparatus. Apparatus claims must be *structurally* distinguishable from the prior art. See MPEP 2114.

Regarding claim 18, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize an adhesive of some sort to secure the lining to the back support, since this is a well-known means by which to adhere items together.

Allowable Subject Matter

5. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claim 16 is allowed.

Response to Arguments

7. Applicant's arguments filed October 20, 2003 have been fully considered but they are not persuasive.

- Applicant argues that since the Richerson reference teaches that there are barriers to more extensive use of ceramics, such as brittleness and low toughness (leading to the tendency to fracture during handling or under contact loading), one skilled in the art would not have used a ceramic as the material of construction for linings in tobacco processing machines. However, the Examiner disagrees. The Richerson reference has already stated that ceramics have excellent characteristics which is why they've been considered for a number of wear applications, including liners – which is the purpose for which Applicant desires the use of the claimed ceramic. Virtually every substance used in industrial applications has certain pros and cons to their use. While Richerson may list some potential limitations to the use of ceramic material, it also infers that an adequate understanding of the design requirements and mechanical limitations would perhaps render moot some of these concerns. The Examiner still posits that one having ordinary skill in the art would have been motivated by

the numerous advantages in using a ceramic material, and would have used such material for the lining in the claimed tobacco conveyor, and would have fabricated the lining in such a manner so as to limit the any structural defects that would prove to be detrimental to the effective and efficient performance of the ceramic-based liner. The Examiner believes that the claims are properly rejected over the prior art.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

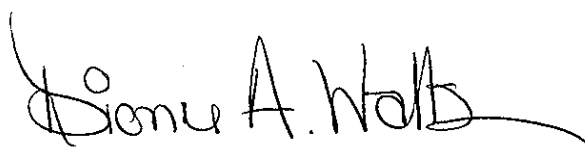
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne A. Walls whose telephone number is (571) 272-1195. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM (Every other Friday off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

A handwritten signature in black ink, appearing to read "Dionne A. Walls", with a long horizontal flourish extending to the right.

Dionne A. Walls
Primary Examiner
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January 7, 2004